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June 9, 1999

100-328484 PRO  
6/09/99  
JC511 U.S. PRO

Box PATENT APPLICATION

Assistant Commissioner for Patents Re: New U.S. Patent Appln.  
Washington, D.C. 20231 Our Ref: 3064NG/47927

Sir:

Transmitted herewith for filing is the patent application of:

Hideaki FUNAKOSHI

entitled: DIGITAL BROADCASTING RECEIVER AND METHOD OF  
CONTROLLING THE SAME

Enclosed are:

1. Specification, including 5 claims (17 pages).
2. 2 Sheets of X Formal        Informal drawings showing Figs. 1-2.
3. X Declaration and Power of Attorney (**executed**).
4. Assignment of the invention to Funai Electric Co., Ltd.
5. X Preliminary Amendment.
6. Priority is being claimed under 35 U.S.C. §119 and 37 C.F.R. §1.55 based on Priority Document 10-161591, filed in Japan on June 10, 1998.
7. X Information Disclosure Statement w/3 references.
8. The filing fee has been calculated as shown below:

Basic Fee		\$380/760 = \$760.00
Total Claims	<u>6</u> - 20 = <u>0</u>	x \$ 9/18 = \$
Independent Claims	<u>3</u> - 3 = <u>0</u>	x \$39/78 = \$
Multiple Dependent Claim Presented		\$130/260 = \$
Total Filing Fee		<u>\$760.00</u>

Two checks in the amount of \$760.00 for the filing fee and \$40.00 for the assignment recording fee are enclosed. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 05-1323 (Docket #3064NG/47927). A duplicate copy of this sheet is enclosed.

Respectfully submitted,

  
Jeffrey D. Sanok  
Reg. No. 32,169

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: HIDEAKI FUNAKOSHI

Serial No.: NOT YET ASSIGNED

Filed: JUNE 9, 1999

Title: DIGITAL BROADCASTING RECEIVER AND METHOD  
OF CONTROLLING THE SAME

PRELIMINARY AMENDMENT

**Box PATENT APPLICATION**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please enter the following amendments to the claims prior  
to the examination of the application.

IN THE CLAIMS:

Please add new claim 6 as follows:

--6. A computer software product for performing a method  
of controlling a digital broadcasting receiver via control of a  
transport unit for separating/dividing a digital broadcasting  
signal subjected to demodulation in order to output a  
separated/divided digital broadcasting signal toward a decoder,  
and an OSD control unit for causing on OSD to be made by  
superimposing data on a broadcasting screen, the computer  
software product, comprising:

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a computer readable medium having stored thereon program code segments that:

determine whether the digital broadcasting signal is transmitted for one-channel broadcasting or multi-channel broadcasting on the basis of data on a packet ID included in the digital broadcasting signal from the transport unit;

instruct the transport unit to output a broadcasting signal including a predetermined packet ID when it is determined that the digital broadcasting signal is transmitted for the multi-channel broadcasting; and

instruct said OSD control unit to make an OSD of a sub-channel corresponding to the packet ID.--

REMARKS

Entry of the amendments to the claims before examination of the application is respectfully requested.

If there are any questions regarding this Preliminary Amendment or this application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in

Serial No.

fees or credit any overpayments to Deposit Account No. 05-1323  
(Docket #3064NG/47927).

Respectfully submitted,

June 9, 1999

  
Jeffrey D. Sanok  
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**DIGITAL BROADCASTING RECEIVER AND METHOD OF CONTROLLING THE SAME**

**BACKGROUND OF THE INVENTION**

**1. Field of the Invention**

5         This invention relates to a digital broadcasting receiver which is utilized for receiving ground waves and the like, and more particularly to a digital broadcasting receiver capable of receiving HD (High Definition) broadcasting, SD (Standard Definition) broadcasting and the like, and to a method of  
10         controlling the digital broadcasting receiver.

**2. Description of the Related Art**

       In the process of transition from analog to digital television broadcasting, a great diversity of broadcasting is increasingly attempted; for example, HD broadcasting utilizing  
15         a band equivalent to one channel and SD broadcasting utilizing several channels resulting from dividing the band equivalent to one channel. When the HD broadcasting that has been terminated is switched to the SD broadcasting of the same channel, the user naturally needs to select a subchannel of the SD broadcasting.

20         There has been proposed a method of selection comprising the steps of dividing a display screen into a plurality of windows and simultaneously causing the subchannels of SD broadcasting to be displayed on the respective windows whereby to select one of the subchannels therefrom (Japanese Patent Unexamined  
25         Publication No. Hei. 9-326972).

In the conventional method above, however, the user would feel a sense of incongruity because the display mode of the screen suddenly changes to display the divided windows in only the form of static images after the termination of the HD broadcasting.

5 Moreover, there can be the user's favorite subchannel in the HD broadcasting and the aforementioned method is never friendly as the user is required to select the subchannel while looking out the divided windows on the screen whenever the HD broadcasting is switched to the SD broadcasting.

10

#### SUMMARY OF THE INVENTION

The present invention was made under the aforementioned background and an object of the invention is to provide a digital broadcasting receiver which does not give a user a sense of incongruity even when one-channel HD broadcasting is switched to 15 multi-channel SD broadcasting and the like and is so improved as to be friendly to the user in view of selecting a subchannel.

Another object of the invention is to provide a method of controlling the digital broadcasting receiver.

According to an aspect of the present invention, there 20 is provided a digital broadcasting receiver comprising: a transport unit for separating/dividing a digital broadcasting signal that has been subjected to demodulation in order to output the separated/divided digital broadcasting signal toward a decoder; a broadcast detecting unit for detecting one of one-channel broadcasting and multi-channel broadcasting according to 25

a packet ID which is included in the digital broadcasting signal and has been inputted to the broadcast detecting unit from the transport unit; and a subchannel control unit for controlling the transport unit so that when a result detected by the broadcast 5 detecting unit indicates the multi-channel broadcasting, a broadcasting signal including a predetermined packet ID is outputted.

According to another aspect of the present invention, there is provided a method of controlling a digital broadcasting 10 receiver by controlling a transport unit for separating/dividing a digital broadcasting signal that has been subjected to demodulation in order to output the separated/divided digital broadcasting signal toward a decoder, and an OSD control unit for causing an OSD to be made by superimposing data on a broadcasting 15 screen, the method comprising the steps of: receiving data on a packet ID included in the digital broadcasting signal from the transport unit; determining whether the digital broadcasting signal is transmitted for one-channel broadcasting or multi-channel broadcasting on the basis of the data on the packet ID; 20 instructing the transport unit to output a broadcasting signal including a predetermined packet ID when it is determined that the digital broadcasting signal is transmitted for the multi-channel broadcasting; and instructing the OSD control unit to make an OSD of a subchannel corresponding to the packet ID.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram of a digital broadcasting receiver for the purpose of describing an embodiment of the present invention.

5 Fig. 2 is a flowchart of a program to be processed by an MPU (Micro Processing Unit) of the digital broadcasting receiver.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

An embodiment of the present invention will now be described with reference to the drawings. Fig. 1 is a block 10 diagram of a digital broadcasting receiver; and Fig. 2, a flowchart of a program to be processed by an MPU of the receiver.

The digital broadcasting receiver taken up now is a television receiver for receiving HD and SD broadcasting or ground waves in order to display the contents of the broadcasting and 15 has a circuit configuration as shown in Fig. 1.

In Fig. 1, reference numeral 10 designates a tuner unit for tuning and receiving a digital broadcasting signal; 20, a demodulating unit for demodulating an output signal of the tuner unit 10; and 30, a transport unit for separating/dividing a video 20 signal, an audio signal and the like from an output signal of the demodulating unit 20.

The video signal outputted from the transport unit 30 is supplied to a display 50 via a decoder 40 and an OSD (On Screen Display) control unit 110. The OSD control unit 110 is a circuit, 25 which is a general-purpose IC in this embodiment, for causing data

on channel and the like to be superimposed on the broadcasting screen displayed by the display 50. On the other hand, the audio signal outputted from the transport unit 30 is supplied to a speaker 70 via a decoder 60.

5        Although the transport unit 30 is the circuit used for separating/dividing the digital broadcasting signal subjected to demodulation as mentioned above, it is also a circuit which functions as what outputs data on a packet ID (PID) included in the digital broadcasting signal during the separating/dividing 10 process. The transport unit 30 is also functions as what is controlled according to an external input with respect to outputting what kind of packet ID of the digital broadcasting signal (e.g., video signal, audio signal and so forth).

Reference numeral 80 designates an MPU for controlling 15 the whole receiver including the tuner unit 10, the transport unit 30 and the decoders 40 and 60. A remote control sensor 91 for receiving a signal from remote controller 90 for remotely operating the whole receiver and an operating unit 92 operating like the remote controller 90 are connected to the input port of 20 the MPU 80.

The remote controller 90 is provided with a power supply switch 901, a mode switching key 902, a channel selection key 903 for making ordinary channel selection, a channel up/down key 904 and the like. In addition, the remote controller 90 is provided 25 with a subchannel selection key 905 for making SD broadcasting

selection. Incidentally, the operating unit 92 is also provided with similar keys.

The subchannel selection key 905 is simultaneously used to set and input a subchannel to be initially displayed (equivalent 5 to a setting unit) when the SD broadcasting is activated after the termination of the HD broadcasting.

The MPU 80 demonstrates the functions of a broadcast detecting unit 81, a subchannel control unit 82 and a storage unit 83 by sequentially processing a program which has been recorded 10 previously in an external memory 100.

The contents of the program used for letting the storage unit 83 demonstrate its function are such that the program is processed when the operating mode is switched to a subchannel setting mode after the mode switching key 902 is pressed and that 15 the data is stored in, for example, an RAM of the MPU 80 when the subchannel is set and inputted via the subchannel selection key 905. The setting and inputting operation is performed by the user on a SD broadcasting basis.

The broadcast detecting unit 81 is used for detecting 20 whether the digital broadcasting signal is transmitted for the HD broadcasting or SD broadcasting on the basis of data on the packet ID outputted from the transport unit 30.

The subchannel control unit 82 controls not only the transport unit 30 so that the digital broadcasting signal of the 25 packet ID corresponding to the subchannel held by the storage unit

83 is outputted when the result detected by the broadcast detecting unit 81 indicates the SD broadcasting but also the OSD control unit 110 so that data on the subchannel of the digital broadcasting signal outputted from the transport unit 30 is outputted and  
5 displayed.

Further, the relations of all the subchannels contained in the SD broadcasting to the packet IDs are listed in a table of the external memory 100 or the like on an SD broadcasting basis, and the MPU 80 is allowed to recognize what kind of packet ID is  
10 included in the subchannel inputted for setting or selected via the subchannel selection key 905.

Fig. 2 shows part of the contents of a program to be processed in the MPU 80, the program including a program for demonstrating the functions of the broadcast detecting unit 81  
15 and the subchannel control unit 82. This program together with the operation of the digital broadcasting receiver will subsequently be described.

When the power supply is turned on via the remote controller 90 or the operating unit 92, the digital broadcasting signal is received by the tuner unit 10 based on channel selection  
20 and the digital broadcasting signal thus selected is sequentially inputted via the demodulating unit 20 to the transport unit 30.

When the channel selection key 903 is pressed, the tuner unit 10 is instructed to change the receiving frequency of the signal.

25 Then, the MPU 80 feeds data on the packet ID from the

transport unit 30 and determines whether the digital broadcasting signal selectively received on the basis of the data has been transmitted for the HD broadcasting or SD broadcasting. More specifically, a method of determining the signal through the S/W process is used to discriminate the HD or SD broadcasting (S1).

When the HD broadcasting is determined, the transport unit 30 and the like is instructed to separate/divide the digital broadcasting signal subjected to demodulation into the video and audio signals to make the decoders 40 and 60 process the video and audio signals (S2) and to have the video signal displayed (S3).

Then, the HD broadcasting is outputted and displayed on the display 50, whereas the voice is outputted from the speaker 70. In this case, an OSD of the channel data is made on the screen of the HD broadcasting if necessary similarly as in the conventional receiver.

When the SD broadcasting is determined, on the other hand, the number of subchannels is confirmed. That is, the number of subchannels is determined to be 1 when the ID data fed from the transport unit 30 is 1, whereas a plurality of subchannels are determined to exist when the ID data is greater than 1 (S4). The reason for confirming the number of subchannels is that only one channel may be used even in the case where the multi-channel broadcasting is utilized by dividing a band equivalent to one channel into several channels.

When the number of subchannels of the SD broadcasting

selectively received is 1, the transport unit 30 and the like is instructed to separate/divide the digital broadcasting signal subjected to demodulation into the video and audio signals as it is unnecessary to select any subchannel, and the video and audio  
5 signals are caused to be processed in the decoders 40 and 60 (S2) and displayed (S3). Then, the subchannel of the SD broadcasting is displayed on the display 50 and the voice is outputted from the speaker 70. An OSD of the subchannel data is made on the screen of the SD broadcasting if necessary similarly as in the case of  
10 HD broadcasting.

When the number of subchannels of the SD broadcasting selectively received is greater than 1, the subchannel data held in the storage unit 83 is read out to determine whether or not the subchannel has been set according to the presence or absence  
15 of the data (S5).

When the subchannel is set, that is, when the subchannel data is held in the storage unit 83, the transport unit 30 is instructed so that the digital broadcasting signal including the packet ID corresponding to the subchannel is outputted (S6). Then,  
20 the transport unit 30 operates to separate/divide the digital broadcasting signal subjected to demodulation into the video and audio signals, which are then supplied to the decoders 40 and 60.

Subsequently, information as to chargeable broadcasting channel previously recorded in the external memory 100 is checked  
25 to determine whether or not the subchannel is intended for

chargeable broadcasting (S7).

When the set subchannel is not intended for chargeable broadcasting, the OSD control unit 110 is instructed to make an OSD of the subchannel data concerned (S8), and the video and audio signals outputted from the transport unit 30 are caused to be processed by the decoders 40 and 60 (S2) before being displayed (S3).

Then, the set subchannel out of those of the SD broadcasting is displayed on the display 50 and the voice is outputted from the speaker 70. The subchannel data is displayed on the display screen for a predetermined time.

When the set subchannel is intended for chargeable broadcasting, on the other hand, the OSD control unit 110 is instructed to make an OSD of the subchannel data (S9) whereby to confirm whether or not the connection of a scrambling unit (not shown) necessary for watching the chargeable broadcasting television has been established by checking to see if I/O data transmission and reception are possible or not (S10).

When the connection of the scrambling unit (not shown) is established, the scrambling unit is operated to cancel the scrambling of the digital broadcasting signal (S11) and the signals are caused to be processed by the decoders 40 and 60 (S2) before being displayed (S3). Then, the chargeable broadcasting is displayed on the display 50 and the voice is outputted from the speaker 70. An OSD of the subchannel data is made on the

display screen for a predetermined time.

When the subchannel is not set yet, that is, when the subchannel data is not held in the storage unit 83 yet, data inputted via the subchannel selection key 905 is to be waited for.

5 When a subchannel is selected via the subchannel selection key 905 or the channel up/down key 904, the transport unit 30 is instructed to output the digital broadcasting signal including the packet ID corresponding to the selected subchannel (S12).

Further, the OSD control unit 110 is instructed to make an OSD 10 of the subchannel data (S13), and the video and audio signals outputted from the transport unit 30 are caused to be processed by the decoders 40 and 60 (S2) before being displayed (S3).

The same processing is applied to a case where the connection of the scrambling unit (not shown) has not been 15 established, though the subchannel for chargeable broadcasting has been set.

Further, the selected subchannel out of those of the SD broadcasting is displayed on the display 50 and the voice is outputted from the speaker 70. An OSD of the subchannel data is 20 made on the display screen for a predetermined time. Even when the chargeable broadcasting is selected, however, the broadcasting cannot be watched unless the digital broadcasting signal is subjected to the scrambling process, and only an OSD of the selected subchannel data is made.

25 In the digital broadcasting receiver according to the

present invention, the subchannel set by the user is displayed instantly when the HD broadcasting is switched to the SD broadcasting and an OSD of the subchannel is made. Since it is possible to display the user's favorite subchannel initially, the 5 receiver is very convenient to the user. Moreover, any subchannel can readily be selected via the subchannel selection key 905 or the channel up/down key 904 thereafter with an ordinary sense of selecting a station.

The digital broadcasting receiver according to the 10 present invention is applicable to not only a television receiver but also a video apparatus or the like of course as long as it is capable of receiving both one-channel broadcasting utilizing a band equivalent to one channel and multi-channel broadcasting utilizing several channels resulting from dividing the band 15 equivalent to one channel.

Such a digital broadcasting receiver may be arranged so that a subchannel to be displayed initially is not set by the user but a subchannel that has been preset within the receiver is displayed initially when the one-channel broadcasting is switched 20 to the multi-channel broadcasting.

Hardware may also be used to realize the functions of the broadcast detecting unit and the subchannel control unit.

As described above, in the digital broadcasting receiver of the invention, since the predetermined subchannel is displayed 25 instantly when the multi-channel broadcasting such as SD

broadcasting is activated after the termination of the one-channel broadcasting such as HD broadcasting, the display mode is not changed unlike in the conventional receiver and the user is never given a sense of incongruity. Moreover, any subchannel 5 of the multi-channel broadcasting can be selected smoothly to ensure that the operation is made friendly to the user.

WHAT IS CLAIMED IS:

1. A digital broadcasting receiver comprising:
  - a transport unit for separating/dividing a digital broadcasting signal that has been subjected to demodulation in order to output the separated/divided digital broadcasting signal toward a decoder;
  - a broadcast detecting unit for detecting one of one-channel broadcasting and multi-channel broadcasting according to a packet ID which is included in the digital broadcasting signal and has been inputted to the broadcast detecting unit from said transport unit; and
  - a subchannel control unit for controlling said transport unit so that when a result detected by said broadcast detecting unit indicates the multi-channel broadcasting, a broadcasting signal including a predetermined packet ID is outputted.
2. The digital broadcasting receiver as claimed in claim 1, further comprising a setting unit for setting a subchannel to be initially displayed when the one-channel broadcasting is switched to the multi-channel broadcasting, and a recording unit for holding the subchannel set via said setting unit, wherein said subchannel control unit controls said transport unit so that when the result detected by said broadcast detecting unit indicates the multi-channel broadcasting, a broadcasting signal including a packet ID corresponding to the subchannel held in said recording

unit is outputted.

3. The digital broadcasting receiver as claimed in claim 2, wherein said subchannel control unit controls said transport unit so that when the result detected by said broadcast detecting unit indicates the multi-channel broadcasting, the broadcasting signal including the packet ID corresponding to the subchannel held in said recording unit is outputted and then controls said transport unit so that when a subchannel selection key or a channel up/down key provided in a receiver body or a remote controller is pressed, a broadcasting signal including a packet ID corresponding to a selected subchannel is outputted.

4. The digital broadcasting receiver as claimed in claim 1, wherein said subchannel control unit is arranged so that when said broadcast detecting unit indicates that the one-channel broadcasting has been switched to the multi-channel broadcasting, an OSD of the subchannel of the broadcasting signal outputted from said transport unit is made.

20

5. A method of controlling a digital broadcasting receiver by controlling a transport unit for separating/dividing a digital broadcasting signal that has been subjected to demodulation in order to output the separated/divided digital broadcasting signal toward a decoder, and an OSD control unit for

causing an OSD to be made by superimposing data on a broadcasting screen, said method comprising the steps of:

receiving data on a packet ID included in the digital broadcasting signal from said transport unit;

5 determining whether the digital broadcasting signal is transmitted for one-channel broadcasting or multi-channel broadcasting on the basis of the data on the packet ID;

instructing said transport unit to output a broadcasting signal including a predetermined packet ID when it is determined

10 that the digital broadcasting signal is transmitted for the multi-channel broadcasting; and

instructing said OSD control unit to make an OSD of a subchannel corresponding to the packet ID.

ABSTRACT OF THE DISCLOSURE

A digital broadcasting receiver capable of receiving HD (High Definition) broadcasting, SD (Standard Definition) broadcasting and the like. In the digital broadcasting receiver, 5 a digital broadcasting signal subjected to demodulation is separated/divided in a transport unit before being supplied to decoders. Data on a packet ID included in the digital broadcasting signal is outputted from the transport unit. An MPU determines HD broadcasting or SD broadcasting according to the 10 data on the packet ID and when the MPU determines the SD broadcasting, it instructs the transport unit to have a set subchannel displayed and also instructs an OSD control unit to make an OSD of the subchannel.

2025 RELEASE UNDER E.O. 14176

FIG. 1

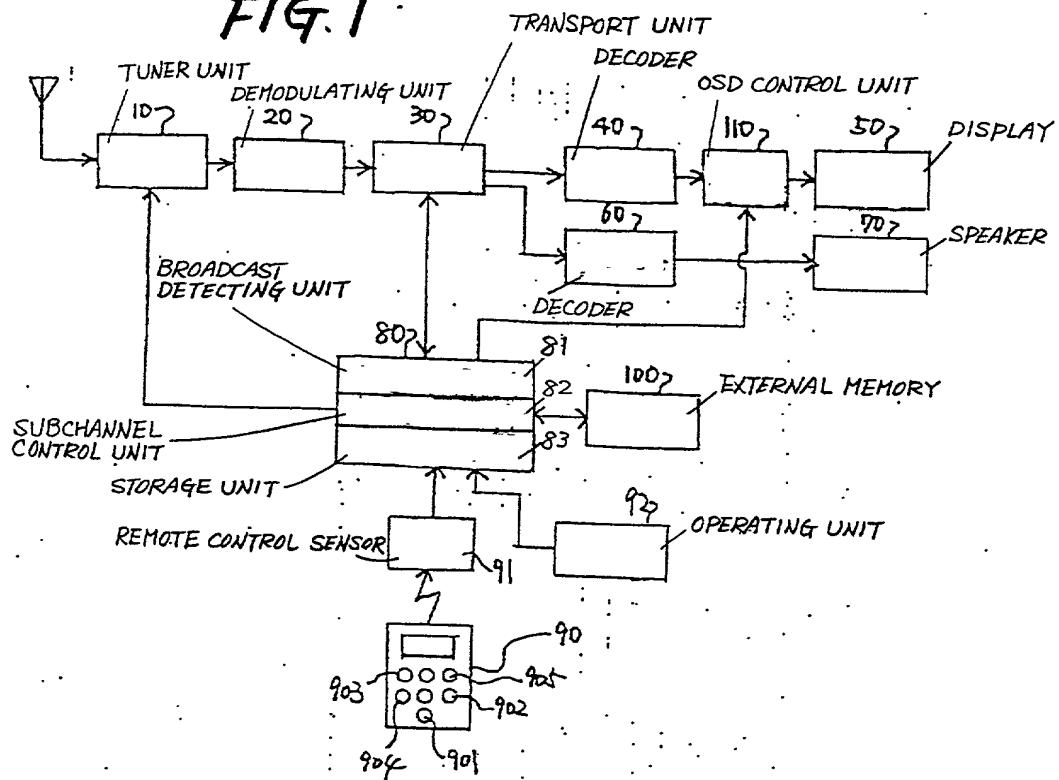
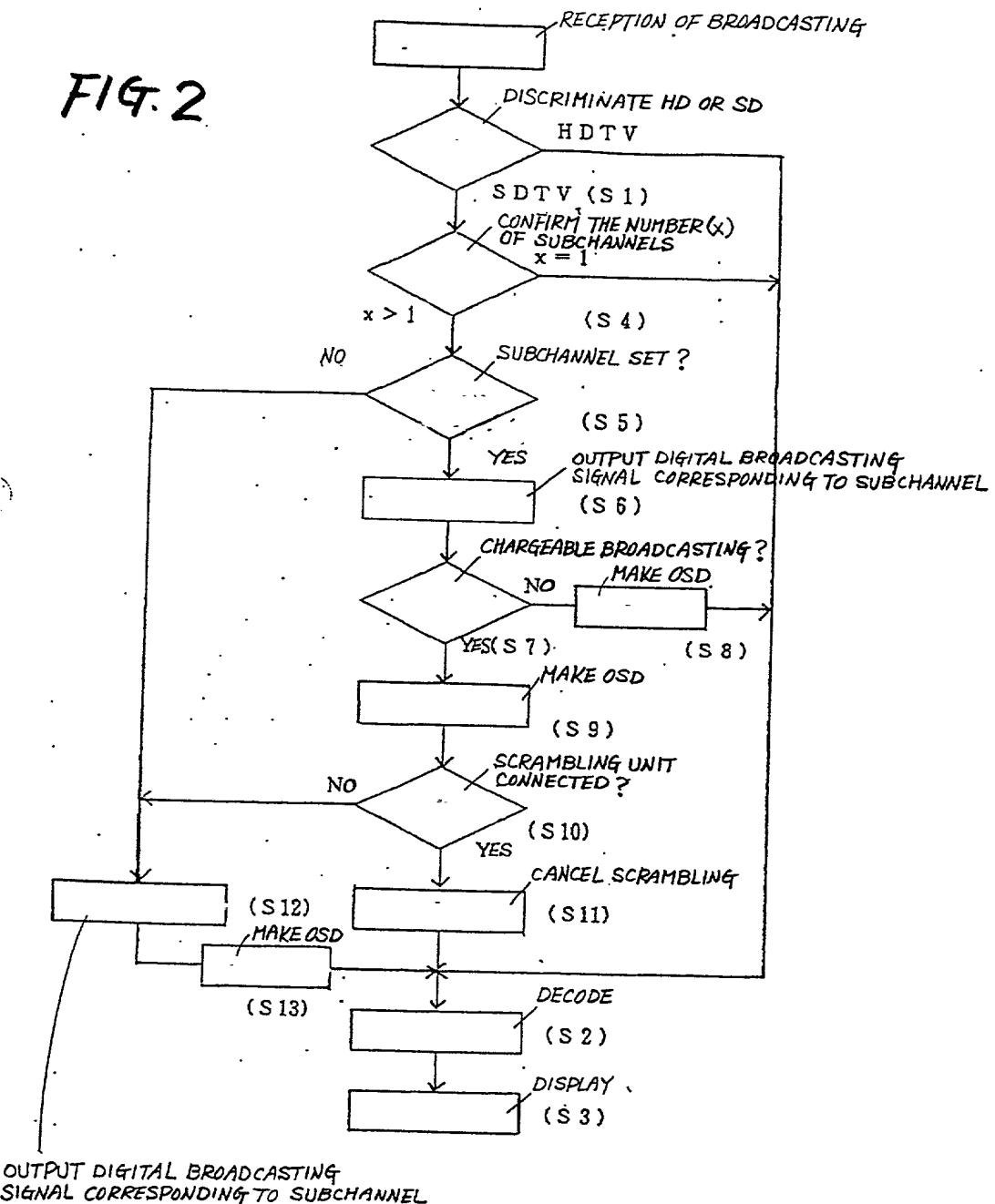


FIG. 2



# Declaration and Power of Attorney For Patent Application

## 特許出願宣言書及び委任状

### Japanese Language Declaration

#### 日本語宣言書

下記の氏名の発明者として、私は以下の通り宣言します。

As a below named inventor, I hereby declare that:

私の住所、私書箱、国籍は下記の私の氏名の後に記載された通りです。

My residence, post office address and citizenship are as stated next to my name.

下記の名称の発明に関して請求範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者であることを（下記の名称が複数の場合）信じています。

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

DIGITAL BROADCASTING RECEIVER AND

METHOD OF CONTROLLING THE SAME

上記発明の明細書（下記の欄でx印がついていない場合は、添付に添付）は、

the specification of which is attached hereto unless the following box is checked:

一月一日に提出され、米国出願番号または特許協定条約国際出願番号を\_\_\_\_\_とし、  
(該当する場合) \_\_\_\_\_に訂正されました。

was filed on \_\_\_\_\_  
as United States Application Number or  
PCT International Application Number  
\_\_\_\_\_ and was amended on  
\_\_\_\_\_ (if applicable).

私は、特許請求範囲を含む上記訂正後の明細書を検討し、内容を理解していることをここに表明します。

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

私は、連邦規則法典第37編第1条56項に定義されるとおり、特許資格の有無について重要な情報を開示する義務があることを認めます。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

**Japanese Language Declaration**  
(日本語宣言書)

私は、米国法典第35編119条(a)-(d)項又は365条(b)項に基き下記の、米国以外の国の少なくとも一ヵ国を指定して、いろいろ特許協力条約365(a)項に基く国際出願、又は外国での特許出願もしくは発明者証の出願についての外国優先権をここに主張するとともに、優先権を主張している、本出願の前に出願された特許または発明者証の外国出願を以下に、枠内をマークすることで、示しています。

**Prior Foreign Application(s)**

外国での先行出願

P.Hei.10-161591

(Number)  
(番号)

Japan

(Country)  
(国名)

(Number)  
(番号)

(Country)  
(国名)

I hereby claim foreign priority under Title 35, United States Code. Section 119 (a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Priority Not Claimed  
優先権主張なし

10/June/1998

(Day/Month/Year Filed)  
(出願年月日)



(Day/Month/Year Filed)  
(出願年月日)



私は、第35編米国法典119条(e)項に基いて下記の米国特許出願規定に記載された権利をここに主張いたします。

(Application No.)  
(出願番号)

(Filing Date)  
(出願日)

(Application No.)  
(出願番号)

(Filing Date)  
(出願日)

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

(Application No.)

(出願番号)

(Filing Date)

(出願日)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of application.

(Application No.)

(出願番号)

(Filing Date)

(出願日)

(Status: Patented, Pending, Abandoned)  
(現況: 特許許可済、係属中、放棄済)

(Application No.)

(出願番号)

(Filing Date)

(出願日)

(Status: Patented, Pending, Abandoned)  
(現況: 特許許可済、係属中、放棄済)

私は、私自身の知識に基づいて本宣言書中で私が行なう表明が真実であり、かつ私の入手した情報と私の信じるところに基づく表明が全て真実であると信じていること、さらに故意になされた虚偽の表明及びそれと同等の行為は米国法典第18編第1001条に基づき、罰金または拘禁、もしくはその両方により処罰されること、そしてそのような故意による虚偽の声明を行なえば、出願した、又は既に許可された特許の有効性が失われることを認めたし、よってここに上記のごとく宣言を致します。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Japanese Language Declaration  
(日本語宣言書)

委任状： 私は下記の発明者として、本出願に關する一切の手続を米特許商標局に対して遂行する弁護士または代理人として、下記の者を指名いたします。（弁護士、または代理人の氏名及び登録番号を明記のこと）

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith

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